

have, through the kindness of Mr. George R. Gray, been able to examine specimens in the British Museum; and there can be no doubt of its being a good species allied to the British bird.

4. *ACREDULA SWINHOOI*. Swinhoe's Bottle-Titmouse.

"*Mecistura swinhoii*, Zelebor," Pelzeln, Reise 'Novara,' Aves, p. 66, Taf. iii. figs. 1, 2 (1865).

Hab. Shanghai (*Zelebor*).

This Titmouse, which I have never seen, and which is at present only known to science by the description and plate above cited, is allied, according to the author's remarks, to *A. glaucogularis*, Gould. Herr von Pelzeln says it must remain doubtful whether the *Mecistura caudata* of Mr. Swinhoe (P. Z. S. 1863, p. 270), observed by that gentleman at Shanghai, refers to this species. As Mr. Swinhoe procured no specimens, I have thought it best to omit it as a synonym.

5. *ACREDULA GLAUCOGULARIS*. Silvery-throated Bottle-Titmouse.

"*Orites? glaucogularis*, Gould," Moore, P. Z. S. 1854, p. 140.

Mecistura glaucogularis, Gould, B. Asia, pt. vii.

To Mr. Gould's notice of this pretty Titmouse in the 'Birds of Asia' I can add nothing, except that Mr. Whitely, of Woolwich, has received specimens from China, thus undoubtedly fixing that country as the true habitat of this species.

6. *ACREDULA TEPHRONOTA*. Günther's Bottle-Titmouse.

Orites tephronotus, Günth., Ibis, 1865, p. 95, pl. iv.

Hab. Asia Minor.

Mr. Salvin has kindly lent me a specimen of this bird from his collection, which agrees with Dr. Günther's description. It was obtained from Mr. Robson, of Ortakeny, who procured the specimens first described by Dr. Günther.

XXVI.—*On the Species of Birds collected by Dr. Stoliczka in Thibet and the Himalayas.* By AUGUST VON PELZELN*.

DR. F. STOLICZKA, who, as member of the Geological Institute

* [Dr. Stoliczka's collections having been more than once mentioned

at Calcutta, has done so much for the advancement of the geology and palæontology of India, brought with him, when he last came to Europe, a very rich collection of birds, one of the results of his travels in Thibet and the Himalayas. The scientific training of the collector has given to this collection a special value, inasmuch as the localities are stated with the greatest accuracy, in many individuals the sexes have been determined, as well as their age and the time of year when they were killed, and, of many species, very complete series are sent, showing the different phases of plumage. As Dr. Stoliczka is very well versed in Indian ornithology, he has himself named, with few exceptions, all the species in the collection. Our museum is deeply indebted to him for presenting to it the unrestricted selection we were permitted to make, and thus enriching it with so highly valuable an acquisition.

In the following pages, with Dr. Stoliczka's consent, I purpose to publish remarks on the birds* collected by him, and to give all the notes which are attached to many of the species.

As a knowledge of the localities and the heights above the sea-level which the different species inhabit is of special importance, I commence with an alphabetical list of their habitats, to which Dr. Stoliczka has himself most kindly added the respective geographical position and the altitude :—

Ankhang (camping-ground), Province of Rupshu, in West Thibet, 14,000–15,000 feet.

Budrawar, in South-east Cashmere, 3000–7000.

Chamba, North-western Himalaya, 2000–3000.

Chergaon, West Thibet, 11,000–12,000.

Chini, North-west Himalaya, 9000.

in 'The Ibis' (1866, p. 142, & 1867, pp. 140–143), we are sure that such of our readers as are interested in Indian ornithology will highly appreciate this account of them by an authority so trustworthy as Herr von Pelzeln of Vienna. It appeared in the 'Journal für Ornithologie' for the present year (pp. 21–37), and, but for the kindness of Lord Walden in undertaking a translation of it, would probably remain unknown to Indian ornithologists.—ED.]

* A few new or doubtful species which Dr. Stoliczka himself proposes to describe, in his forth-coming work on Thibet, are not included.

Chumig-Kiarsa, north of the Baralatse Pass, Prov. Rupshu, on the Lingti River, 13,000.

Dras, West Thibet, 10,000–11,000.

Gaora, West Thibet, 12,000–15,000.

Gulabbagh, easterly from Leh, Prov. Ladakh, West Thibet, 11,000.

Gyagar, Lake of, in the vicinity of Korzog, Prov. Rupshu, West Thibet, 15,500–17,000.

Hoomerpoor, North-west Himalaya, not far from Kangra, 1000–2000.

Jaora, southerly from Kishtwar in East Cashmere, 4000–5000.

Indus, at Puga in Rupshu, 14,000–15,000.

Islamabad, in East Cashmere, 5000–6000.

Kangra, North-west Himalaya, 2000.

Kangsar, Prov. Lahul, West Thibet, 11,000.

Kargil, Prov. Dras, West Thibet, 11,000.

Karoo, Prov. Dras, 11,000.

Kishtwar, East Cashmere, 3000–4000.

Kokser, in Lahul, West Thibet, 8000–9000.

Korzog, in Rupshu, West Thibet, 15,000–16,000.

Kotegurh, north-east from Simla, North-west Himalaya, 4000–8000.

Kyangsisa, Prov. Rupshu, West Thibet, 16,000.

Kyelang, in Lahul, 9000.

Lama Yuroo (camping-ground), valley of Tsarap, Rupshu, 13,000.

Lara, in Spiti, 12,000.

Losar, in Spiti, 13,000–14,000.

Leh, Prov. Ladakh, West Thibet, nearly 12,000.

Mahasu, near Simla, North-west Himalaya, 6000–7000.

Markanda, north-west from Simla, 2000.

Marselang, West Thibet.

Matiana, north-east from Simla, North-west Himalaya.

Menali, Prov. Kulu.

Nachar, North-west Himalaya, 6000–8000.

Nadaon, North-west Himalaya, 2000–3000.

Narkanda, north-east from Simla, North-west Himalaya, 8000–9000.

Niri Sumdo, Prov. Karnag, West Thibet, 14,000–16,000.

Nirth, near Kotegurh, North-west Himalaya, 4000.

Pangi, near Chini, North-west Himalaya, 9000–10,000.

Parang, below the pass of, between Spiti and Rupshu, 17,000.

Pharkachan, near Suroo, West Thibet, 9000–10,000.

Po, in Spiti, West Thibet, 12,000.

Puga, Prov. Rupshu, West Thibet, 14,000.

Rampoor, North-west Himalaya, 4800.

Ranga, on the Indus, West Thibet, 11,000.

Rangdum-gonpa, west from Padam, West Thibet, 10,000.

Rogi, near Chini, North-west Himalaya, 8000–9000.

Sachatti, North-west Himalaya, 3000–4000.

Saleskote, North-west Himalaya, 3000-5000.
 Serahan, North-west Himalaya, 9000-10,000.
 Simla, North-west Himalaya, 6000-7500.
 Singpur, North-west Himalaya, 3000-6000.
 Sirinagur, Cashmere, 5000.
 Siringur, Cashmere.
 Sisu, in Lahul, West Thibet, 11,000-12,000.
 Sultanpoor, in Kulu, North-west Himalaya, 4000.
 Suroo, West Thibet, 10,000-12,000.
 Taglang (camping-ground), Rupshu, West Thibet, 15,000-16,000.
 Thalco, in Spiti, West Thibet, 12,000.
 Theog, near Simla, North-west Himalaya, 6000.
 Tnantse Sumdo, in Karnag, West Thibet, 15,000-16,000.
 Tranda, North-west Himalaya, 7000-9000.
 Urui, North-west Himalaya, 6000.
 Wangtu, North-west Himalaya, 5000-6000.
 d'Zala, north from the Baralatse Pass, West Thibet, 15,000.
 Zangra, north of Suroo, West Thibet, 10,000.
 Zingzingbar, North Lahul, West Thibet, 15,000.

GYPÆTUS BARBATUS, L. Kotegurh (winter) *.

BUTEO FEROX (S. G. Gmelin) ; *B. canescens*, Hodgs. Kote-gurh (winter).

The specimen sent belongs to the variety *B. rufinus*, and agrees with the examples of the adult birds of that variety collected by Herr Kotschy in Nubia (compare my 'Uebersicht der Geier und Falken,' 147 D), only that the Himalayan bird has the tail banded, and consequently must be considered somewhat younger.

AQUILA PENNATA (Gm.). Rogi.

A young bird, but able to fly, which was sitting in its nest, but then left it. Underneath brown, with a large white shoulder-spot. It is very like a young male shot at Guntramsdorf in Lower Austria (Uebers. der Geier und Falken, 161 C), only that it has the occiput and nape more rusty, and that the caudal bands are scarcely apparent. The quills are shorter, and have evidently not reached their full dimensions.

* Some of the species are noted "in winter only." These are migratory birds, which only frequent Kotegurh and the southern slopes of the North-western Himalaya (at heights from 4000 to 8000 feet) during the winter, and which are not to be found there in summer.

FALCO COMMUNIS, Gm. Kotegurh (winter).

By the size appears to be a male. Head and nape blackish, here and there mixed with rufous; above grey, with black markings; cheeks black; throat whitish; region of the crop and the breast faintly, the belly more decidedly, washed with rufous; throat, region of the crop, and breast without any markings; belly, flanks, and under surface of wings marked with narrow, dark, often wavy, transverse lines. Agrees very closely with a specimen obtained by the 'Novara' Expedition in Chili.

HYPOTRIORCHIS SUBBUTEO (L.). Rogi.

TINNUNCULUS ALAUDARIUS (Briss.). Kotegurh (winter).

MILVUS GOVINDA, Sykes. Kotegurh (winter).

ACCIPITER NISUS (L.). Chini, Kotegurh (winter).

The lengths of wing in the specimens sent are respectively $7\frac{1}{4}$ ", 8", $9\frac{1}{4}$ ". None of the specimens possess a median gular stripe. One individual, evidently a male, is ticketed *Accipiter nisoides*, Blyth? (*A. gularis*, Schlegel); but, in my opinion, all the examples belong to the true *A. nisus*. With reference to the above-mentioned closely related species, compare Blyth, 'Ibis,' 1863, p. 15 (Malacca, Sumatra?), 1865, p. 28, 1866, p. 240 (*A. nisoides*); and Schlegel, Mus. Pays-Bas, *Astures*, p. 33, *Nisus gularis* (Nipal, Japan).

SYRNIUM NEWARENSE, Hodgson. Kotegurh (winter).

The wing in this specimen measures 16". A specimen received from Baron Hügel, and also from the Himalayas, is decidedly smaller (wing 15"); above it is much redder, and the wavy cross markings underneath are narrower and paler.

SYRNIUM NIVICOLUM, Hodgs. Kotegurh.

ATHENE RADIATA, Tickell. Kotegurh (winter).

GLAUCIDIUM BRODIÆI (Burton). Kotegurh (winter), Narkanda.

CYPSELUS MELBA (L.). Kotegurh (winter).

CYPSELUS APUS (L.). South-west from Leh.

CYPSELUS AFFINIS, Gray & Hardw. Kotegurh (winter).

A specimen, said to be from Ceylon, received from Baron Hügel, agrees very well with this one from the Himalaya.

CYPSELUS LEUCONYX, Blyth. Kotegurh.

HIRUNDO DAURICA, L. Nachar.

HIRUNDO FILIFERA, Steph. Kangra.

HIRUNDO RUPESTRIS (Steph.*). Kotegurh.

HALCYON FUSCA (Bodd.). Kotegurh (winter).

MEROPS VIRIDIS, L. Kotegurh, Nachar.

UPUPA EPOPS, L. Kotegurh, Korzog (August).

Besides European and the specimens sent, our collection contains an old male from Chartum (August?), sent by Dr. Heuglin, and two individuals from Amoy (May), sent by Mr. Swinhoe. The Chinese birds are smaller than the others; and all Asiatic specimens, more especially on the back, are of a greyer hue.

NECTARINIA ASIATICA (Lath.). Kotegurh (winter), Rampoor.

NECTARINIA GOULDIÆ (Vig.). Kotegurh (winter), Tranda, Gaora.

MYZANTHE IGNIPECTUS, Hodgs. Kotegurh (winter), Gaora.

CERTHIA HIMALAYANA, Vig. Pangi, Kotegurh (winter), Ranga, Gaora.

TICHODROMA MURARIA (L.). Kotegurh, Tnantse Sumdo.

The entire under surface from the base of the bill of the bird from Tnantse Sumdo is grey, and the bill from the angle of the mouth only measures 1"; while the second specimen from Kotegurh has a white throat, and a bill measuring 15". The occiput is tinged with an ochreous hue.

SITTA LEUCOPSIS, Gould. Budrawar, Pangi, Simla, Kotegurh (winter).

SITTA HIMALAYENSIS, Jard. et Selby. Kotegurh, Gaora.

* [This species was first described, and under this name, by Scopoli, in 1769 (Ann. i. Hist.-Nat. p. 167. no. 253).—Tr.]

PNOEPYGA SQUAMATA (Gould). Kotegurh?

SUYA CRINIGER, Hodgs. Kotegurh.

The example sent does not reach the dimensions given by Jerdon (*Birds of India*, ii. p. 183).

NEORNIS FLAVOLIVACEA, Hodgs.? Rogi, Pangi?

The Pangi specimen differs by having the crop and breast washed with greyish.

ABRORNIS XANTHOSCHISTUS, Hodgs. Kishtwar, Kotegurh, Gaora.

REGULOIDES TROCHILOIDES (Sundev.). Pangi, Kotegurh.

REGULOIDES PROREGULUS (Pall.). Pangi, Chamba, Kotegurh (winter).

REGULOIDES OCCIPITALIS (Jerdon)? Narkanda, Sultanpoor (May), Pangi, Kyelang (June).

REGULUS CRISTATUS, Ray; *R. himalayensis*, Blyth. Kotegurh (winter).

Most careful comparison has convinced me of the specific identity of the European and Asiatic birds.

PHYLLOSCOPUS TRISTIS, Blyth. Kargil.

PHYLLOSCOPUS AFFINIS (Tickell). Menali (June).

COPSYCHUS SAULARIS (L.). Kangra.

SAXICOLA DESERTI, Rüppell*. Kotegurh (only in winter), Lake Gyagar in Rupshu, Ankhong.

Both the specimens of males agree well with an Egyptian specimen sent by Consul Acerbi, excepting that the latter is smaller.

SAXICOLA PICATA, Blyth. Hoomeerpoor.

* Dr. Stoliczka received from Captain Beavan a pair of *Saxicola saltatrix*, Ménériés, which were collected in November 1866 at Umballa (500 feet), and fully agree with the examples in our museum. Among these, one from Arabia was bought of the Berlin Museum (as *S. valida*, Licht.), one was received in exchange from the Frankfort Museum (as *S. olivacea*, Mus. Frankf.), one was obtained in Nubia by Herr Kotschy, and, lastly, one was sent from the White Nile by Consul Reitz.

PRATINCOLA RUBICOLA (L.); *P. indica*, Blyth. Sirinagur. (summer ?), Kotegurh (winter), Serahan, Menali (June).

After a careful examination of the series of this species sent by Dr. Stoliczka, I cannot find any difference between them and European individuals.

PRATINCOLA CAPRATA (L.). Kotegurh, Rampoor, Sultanpoor (May), Sachatti (November).

The male of *P. caprata* from the Himalaya fully agrees with examples of males in our collection from Luzon* (from Temminck), Java (from the Leyden Museum), and Timor (from M. Verreaux).

PRATINCOLA FERREA, Hodgs. Kotegurh, Narkanda, Serahan, Theog, Pangl, Kangra ?, Gaora.

This species is represented by numerous individuals of both sexes and of all ages. Two males, which are in moulting plumage, have the greater part above, more especially, however, the crown and nape, ornamented with yellow longitudinal streaks; the secondaries have rust-red edgings. Underneath the plumage is more or less tinged with yellowish. Both the female specimens sent, and which are of much younger birds, are far more striped with rust-yellow; also underneath they are of a very pale ochre-colour, which is lost on the breast by the dark-edged feathers giving to that part a spotted or scaly appearance.

RUTICILLA RUFIVENTRIS (Vieill.). Dras, Kargil, Leh, Korzog.

RUTICILLA CÆRULEOCEPHALA (Vig.). Kotegurh (winter), Pangl, Rogi.

A series of seventeen examples. The male from Kotegurh, in winter dress, displays yellow-tipped feathers on the entire upper side as well as on the throat and breast. The colouring of the female is as follows:—Above grey-brown; the last of the greater wing-coverts have white edgings; upper tail-coverts and the

* [The type of this species came from the island of Luzon, where, according to Brisson, it is called *Maria-capra*, which Linnæus appears to have Latinized. Its identification with the Indian form is most valuable; for I believe this is the first record published of an actual comparison having been made between an original Philippine and an Indian specimen.—Tr.]

edges of the tail-feathers at the base of the outer webs rust-red. Underneath same colour as above, only much paler, with the centre of the ventral region almost white; under wing-coverts white, brown-spotted; under tail-coverts pale white; quills and rectrices brown. Young birds of both sexes differ from the female by having darker edgings to the feathers—so much so that the bird has a spotted or scaly appearance; while the young male has already the secondaries white-edged, and the tail black with a metallic sheen.

RUTICILLA FULIGINOSA, Vig. Tranda, Pangi, Chamba, Kotegurh, Kangra, Chergaon.

A full-coloured specimen of a male from Pangi has a number of white feathers on the crown. The young birds of both sexes differ from the female by having the feathers on the upper surface towards the end of the shaft showing a white or yellowish spot. On the head and nape the shafts are often light-coloured. In the young male some of the tail-feathers are partly, some almost completely, red; and it is easy to trace the manner in which the red colour develops itself.

CHIMARRHORNIS LEUCOCEPHALA (Vig.). Sind valley, Cashmere, Kotegurh.

The specimen of a female from the Sind valley is evidently not that of an adult; the length of wing is $3\frac{1}{4}$ " ; the belly is not red as in the full-coloured bird, but reddish-black, many of the feathers having faint reddish edgings.

THAMNOBIA CAMBAIENSIS (Lath.). Kangra, Kangsar?

LARVIVORA CYANA, Hodgs. Mahasu, Narkanda.

IANTHIA CYANURA (Pall.). Kotegurh (winter), Pangi.

TARSIGER CHRYSÆUS, Hodgs. Kotegurh.

CALLIOPE PECTORALIS, Gould. Pharkachan, Rangdum Gonpa.

The female is spotted yellow above; underneath, more especially on the breast, the feathers have dark edgings—a colouring which we find exactly like that of the young bird in many species of *Ruticilla*. This specimen is evidently that of a quite young female.

CYANECULA SUECICA (L.). Sirinagur, Saleskote, Zangra, Kargil.

ACCENTOR ALTAICUS, Brandt. Kotegurh (only in winter).

ACCENTOR STROPHIATUS, Hodgs. Kotegurh (only in winter).

ACCENTOR RUBECULOIDES, Hodgs. Korzog.

ACCENTOR HUTTONI, Moore; *A. atrogularis*, Brandt, Gould, Birds of Asia. Kotegurh (winter only).

ÆGITHALISCUS ERYTHROCEPHALUS (Vig.). Kotegurh (winter).

LOPHOPHANES RUFONUCHALIS, Blyth. Pangi.

LOPHOPHANES MELANOLOPHUS (Vig.). Budrawar, Simla, Kotegurh (winter).

PARUS MONTICOLUS, Vig. Kotegurh (winter), Sultanpoor (May).

PARUS CINEREUS, Vieill. Sind valley, in Cashmere, Gaora.

MACHLOLOPHUS XANTHOGENYS (Vig.). Kotegurh (winter), Pangi, Mahasu, Gaora.

The specimen from Kotegurh is that of an old bird with yellow cheeks; the three others have white cheeks, in one slightly mixed with yellow, and the cap is scarcely developed. In these three the extent and gloss of the black colour on the neck and breast are developed in different degrees.

SYLVIPARUS MODESTUS, Burton. Pangi.

CEPHALOPYRUS FLAMMICEPS (Burton). Kotegurh (winter).

ZOSTEROPS PALPEBROSUS (Temm.). Pangi, Serahan, Markanda (May), Kotegurh (winter).

MOTACILLA PERSONATA, Gould, Birds of Asia, pt. xiii. t. 15. Narkanda, Gulabbagh.

The bird from Gulabbagh is in summer dress, and has the upperside black, the middle of the back only being mixed with grey. The male bird from Narkanda is grey above, with the throat white; the crop and breast black, the feathers being edged with white.

MOTACILLA BOARULA, Penn.*; *Calobates sulphurea*, Bechst., Jerdon, Birds of India. Kotegurh, Kokser (June).

BUDYTES RAYI, Bonap. Sirinagur (September), Suroo.

The young bird from Suroo, which probably belongs to this species, has a broken transverse dark band on the breast.

HENICURUS (errore *Enicurus*) MACULATUS, Vig. Kotegurh (winter), Pangi, Chamba.

HENICURUS SCOULERI, Vig. Kotegurh (winter), Chergaon.

PIPASTES AGILIS (Sykes). Kotegurh (winter).

Only differs from *P. arboreus* by having a stouter bill. I do not think that it can be considered specifically distinct, notwithstanding that Jerdon (Birds of India, ii. pp. 228, 229) gives both species as inhabitants of India†.

CORYDALLA RUFULA (Vieill.). Kangra.

AGRODROMA SORDIDA (Rüppell). Islamabad, Kotegurh, Nirth.

ANTHUS AQUATICUS, Bechst. Kotegurh (winter).

Jerdon's expectation (*tom. cit.* p. 239) that this species would be found in the Himalayas has been realized by the examples collected by Dr. Stoliczka.

HETERURA SYLVANA, Hodgs. Kotegurh (winter), Nachar.

MYIOPHONUS TEMMINCKI, Vig. Pangi, Kotegurh (winter), Serahan.

One of the two individuals from Pangi, evidently a young bird, is much smaller than the others (length of wing $6\frac{1}{4}$ "). It is of

* [It is customary to ascribe this name, with a few more, to Pennant. We have not been able to find that he ever bestowed a scientific name on any species. In the present case he certainly should not be cited as the authority; for this species either is, or is not, the *M. boarula* of Linnæus (Mantiss. 1771, p. 527). If it is, the name was first conferred by him; if it is not, the name belongs to another species, and cannot be used for this.—Ed.]

† [May not this specimen be one of the true *P. arboreus*? Does the Vienna Museum possess authentic specimens of the *P. agilis* of Indian authors? Col. Sykes's type is in the East-India Museum and is kept as a species distinct from *P. arboreus* by Horsfield and Moore (Cat. B. Mus. H.E.I.C. i. p. 354). Dr. Jerdon (*ut supra* p. 230), states that the bill in *P. arboreus* is stronger than in *P. agilis*.—Tr.]

a dead black ; the bluish-white spots are scarcely defined, and only to be seen on the breast, the blue of the quills and tail being already present. The lower mandible, instead of being pure yellow, is for the most part dusky.

CINCLUS CASHMIRIENSIS, Gould. Nini Sumdo, in Karnag. Agrees perfectly with Salvin's description (*Ibis*, 1867, p. 117).

CINCLUS ASIATICUS, Swains. Singpur, Nachar.

ZOOTHERA MONTICOLA, Vig. Simla (winter).

The specimen sent differs from an example received through Baron Hügel from the Himalayas by having a shorter bill (18" as against 21" from the angle of the gape in a straight line); but no other difference in size exists. In Dr. Stoliczka's specimen the shafts of the crown-feathers are, for the greater part, of a rust-colour, and the greater wing-coverts show terminal spots of the same colour, which is not the case in the other specimen.

PETROCOSSYPHUS CYANUS (L.). Kotegurh, Rampoor.

OREOCÆTES ERYTHROGASTER (Vig.). Kotegurh (winter), Theog, Matiana.

OREOCÆTES CINCLORHYNCHUS (Vig.). Kotegurh, Pangi, Tranda.

TURDULUS WARDI, Jerdon. Serahan.

MERULA BOULBOUL (Lath.). Kotegurh, Theog.

MERULA ALBOCINCTA (Royle). Kotegurh (winter).

MERULA CASTANEA, Gould. Kotegurh (winter).

PLANESTICUS ATROGULARIS (Temm.). Kotegurh.

Seems to appear there in winter only.

TURDUS HODGSONI (Lafr.). Kotegurh, Simla, Pangi, Chini.

The specimen from Pangi is smaller (wing 6"), and is in adolescent plumage, with yellow on the upper surface.

OREOCINCLA MOLLISSIMA (Blyth). Kotegurh (winter).

GARRULAX ALBOGULARIS (Gould). Kotegurh (winter), Matiana.

TROCHALOPTERUM ERYTHROCEPHALUM (Vig.). Kotegurh (winter), Mahasu, Narkanda.

The specimen from Narkanda is that of a young bird; its wings measure only 3" 8^m, and the tail 3½" in length; the black spots on the nape and the sides of the breast are wanting; otherwise the plumage agrees with that of the adult bird.

TROCHALOPTERUM VARIEGATUM (Vig.). Kotegurh (winter), Narkanda, Kyelang (June).

The rectrices of a male from Kotegurh are tinted with reddish; and in the female from Kyelang the edges of the quills are grey, faintly tending to yellowish.

TROCHALOPTERUM LINEATRUM (Vig.). Kotegurh (winter), Kyelang (June).

GRAMMATOPTILA STRIATA (Vig.). Kotegurh (winter).

STACHYRHIS PYRRHOPS, Hodgs. Kotegurh, Chamba.

POMATORHINUS ERYTHROGENYS, Vig. Kotegurh (winter).

SIBIA CAPISTRATA (Vig.). Kotegurh (winter).

HYPsipETES PSAROIDES, Vig. Kotegurh, Tranda.

OTOCOMPSA LEUCOGENYS (Gray). Kotegurh (winter), Narchar, Serahan.

PYCNONOTUS PYGÆUS, Hodgs. Kotegurh (winter).

TCHITREA PARADISI (L.). Sirinagur, Sultanpoor (May), Kotegurh.

*LEUCOCERCA FUSCOVENTRIS** (Franklin). Kotegurh?

LEUCOCERCA ALBOFRONTATA (Franklin). Nadaon.

CULICIPETA BURKII (Burton). Mahasu.

CRYPTOLOPHA CINEREOCAPILLA (Vieill.). Kotegurh, Gaora.

HEMICHELIDON FULIGINOSA, Hodgs. Kotegurh, Pangî, Rogi, Narkanda, Urui, Gaora.

* [This species must stand as *L. albicollis* (Vieill. N. Diet. xxvii. p. 13, 1818), founded on specimens in the Paris Museum, brought from Bengal by Macé (*vide* Puch. Arch. du Mus. vii. p. 358). It is also the *M. albugularis* of Lesson, Tr. d'Orn. p. 386.—Tr.]

A series of eleven individuals enables it to be seen that the young bird in this species is adorned above with pale ochre or rust-yellow shaft-stripes, while the wing-coverts and the last quills have rather broad rust-yellow borders; beneath, the plumage is whitish, with a spotted or scaly appearance in consequence of the feathers being dark-edged. By degrees the streaks on the upper side become whitish and more and more indistinct; so that in two individuals faint spots on the back and very fine white lines, becoming rather broader towards the end, are only to be found—in a young male from Gaora on the forehead and back of the head, and in the one from Urui on the back of the head and nape only.

EUMYIAS MELANOPS (Vig.). Kotegurh, Mahasu.

A young male from Kotegurh has the throat, part of the breast, and the belly still ochre-yellow.

CYORNIS RUFICAUDA (Swains.). Pangi, Rogi, Urui.

As in *Hemichelidon fuliginosa*, so also in *Cyornis ruficauda* is the resemblance of the plumage of the young bird to that of *Erythrosterna parva* and of many species of *Ruticilla* apparent. In the young male from Pangi the greatest part above appears scaly in consequence of the dark edgings to the ochre-coloured feathers; the edges of the wing-coverts are yellowish. Below, it is whitish, with dark-edged feathers; the middle pair of rectrices and the outer webs of the others are brown, the remainder of the tail being rust-red. A second example from the same locality displays the transition to perfect plumage.

MUSCICAPULA SUPERCILIARIS (Jerdon). Sind valley in Cashmere, Gaora to the south of Kishtwar (October), Pangi, Kotegurh, Nachar, Urui, Rogi.

Ten examples of this species are sent. Above, the female is grey, somewhat inclining to olive; the forehead, lores, and chin are tinted with rust-yellow; the breast is greyish, the rest of the under surface yellowish-white. The young birds of both sexes have the pale yellow feathers above and the whitish feathers of almost the whole lower surface dark-edged, thus giving a scaly appearance to the plumage. In the male specimens the edges of the tail-feathers have already put on their beautiful blue

colour. The further transitions to the perfect state of plumage are very instructively represented in this series.

SIPHIA STROPHIATA, Hodgs. Kotegurh, Narkanda.

SIPHIA LEUCOMELANURA, Hodgs. Kotegurh, Mahasu.

The female (from Mahasu) is reddish-brown above, whitish underneath, here and there washed with ochre-colour. The tail near its insertion is brown, with rust-red edges.

ERYTHROSTERNA LEUCURA (Gm.). Sirinagur (September).

In my opinion not distinct from *E. parva*.

PERICROCOTUS BREVIROSTRIS (Vig.). Kotegurh (winter), Gaora.

DICRURUS LONGICAUDATUS, A. Hay. Kotegurh, Serahan, Gaora (August).

The bird from Gaora (August 26, 1866) is noted as adult and in moulting plumage. In this specimen the length of the wing is 4'' 5''', that of the tail 3'' 9''' ; the rectrices among themselves differ but slightly in length*.

SIVA STRIGULA, Hodgs. Kotegurh (winter).

PROPARUS VINIPECTUS (Hodgs.). Narkanda, Kotegurh (winter).

ALLOTRIUS XANTHOCHLORUS (Hodgs.). Kotegurh (February). *A. ænobarbus*, Temm.; Jerdon, Birds of India, ii. p. 246. *A. xanthochlorus*, Hodgs.; Gould, Birds of Asia, pt. viii. t. 12.

PTERUTHIUS ERYTHROPTERUS (Vig.). Kotegurh (winter).

LANIUS ERYTHRONOTUS (Vig.). Kotegurh, Gaora, Sisu (June).

LANIUS HARDWICKII (Vig.)†. Kotegurh.

CORVUS TIBETANUS, Hodgs. Po in Spiti (July).

Length 26½'', tail 12'', length of bill 3½'', height of bill 1½''

* [Are the full number of tail-feathers present? or are the outer pairs in process of growth? Otherwise the equality in their length is most abnormal; for this species is distinguished by the outer pairs of rectrices being so much longer than the middle pairs. This bird must fall under the genus *Buchanga*, Hodgs. (cf. P. Z. S. 1866, p. 547).—Tr.]

† [The oldest title for this species is *L. vittatus*, Valenc.—Tr.]

(Dr. Stoliczka). Does not seem to me to differ specifically from *C. corax*.

CORVUS INTERMEDIUS, Adams. Pangi.

NUCIFRAGA HEMISPILA, Vig. Kotegurh, Narkanda, Chini.

NUCIFRAGA MULTIPUNCTATA, Gould. Gaora, in a southerly direction from Kishtwar in Eastern Cashmere.

GARRULUS BISPECULARIS, Vig. Budrawar, Kotegurh.

GARRULUS LANCEOLATUS, Vig. Kotegurh (winter).

DENDROCITTA HIMALAYANA, Blyth. Kotegurh (winter).

D. sinensis (Lath.) ; Jerdon, *Birds of India*, ii. p. 316. *D. himalayana*, Blyth ; Jerdon, *ibid.* iii. p. 874.

UROCISSA CUCULLATA, Gould. Kotegurh ?

U. cucullata, Gould, *Birds of Asia*, pt. xiii. t. 5 ; Jerdon, *op. cit.* iii. p. 873.

Our collection received a specimen of *U. flavirostris* (Blyth), from Cashmere through Baron Hügel.

PYRRHOCORAX ALPINUS, Vieill. Lara in Spiti (July).

FREGILUS GRACULUS (L.). Rogi.

F. himalayanus, Gould, *P. Z. S.* 1862, p. 125* ; Jerdon, *op. cit.* ii. p. 319.

After comparison made with our European examples, I have not a doubt that the Himalayan bird belongs to the same species ; for the distinction is chiefly based upon the difference in the dimensions, and these do not maintain any constant discrepancy, as will be seen from the following measurements :—

	Male shot, March 1824, near Turin.	Male from Switzerland, in exchange from Dr. Schinz.	Female from Rogi.
Bill in a straight line from angle of the mouth . . . }	2"	2" 4'''	2"
Wing	10" 9'''	11" 9'''	11" 6'''
Tail	5"	5" 4'''	6"
Tarsus	2"	2"	2"

* [First named by Mr. Gould in *P. Z. S.* 1860, p. 206, and then more fully described in 1862.—Tr.]

MUNIA MALABARICA (L.). Sachatti (November).

PASSER INDICUS, Jard. et Selby. Kotegurh, Kangsar.

PASSER CINNAMOMEUS (Gould). Kotegurh (winter), Gaora.

EMBERIZA CIA, L. Kotegurh, Rogi, Simla, Pangi, Kyelang (June).

EMBERIZA STEWARTI, Blyth. Wangtu, Pangi, Rogi, Urui, Kotegurh (winter).

A very fine series of specimens displays the transitions in the male from young to full plumage.

EMBERIZA FUCATA, Pall. Serahan, Tranda, Gaora.

MELOPHUS MELANICTERUS (Gm.). Kotegurh, Nirth, Rampoor.

A young specimen (from Rampoor) is smaller than the adult female (length of wing 2" 9''); the cap is but slightly developed; the wing-coverts are not rust-red, but for the greater part brown bordered with rust-yellow; the tail is brown, only a little red being seen on the inner webs of both the outermost feathers near to the shaft and towards the tip.

HESPERIPHONA ICTERIOIDES (Vig.). Kotegurh (winter).

PYRRHULA ERYTHROCEPHALA, Vig. Kotegurh (winter).

CARPODACUS RUBICILLA (Güldenst.). Below the Parang Pass, Ankhang.

CARPODACUS ERYTHRINUS (Pall.). Kotegurh (winter only), Pangi (summer), Chamba, Serahan, Sisu in Labul (June).

Both sexes in summer and winter plumage.

PROPASSER RHODOCHLAMYS (Brandt). Kotegurh (winter).

PROPASSER RHODOCHROUS (Vig.). Kotegurh (winter only), Narkanda.

Whether the old male sent does not belong to *P. pulcherrimus*, Hodgs., cannot be decided without comparison with authentic examples of that species.

CALLACANTHIS BURTONI (Gould). Kotegurh (winter).

CARDUELIS CANICEPS, Vig. Kotegurh (winter), Kyelang (June).

CHRYSOMITRIS SPINOIDES (Vig.). Kotegurh (winter), Nirth, Pangl.

METOPONIA PUSILLA (Pall.). Kotegurh (winter), Kyelang (June).

LINOTA BREVIROSTRIS, Gould. Lake Gyagar in Rupshu.

Our example is only to be distinguished from the European *L. montium* by possessing a stouter bill and being paler-coloured.

MONTIFRINGILLA HÆMATOPYGIA, Gould. Lake Gyagar, Chumig-Kiarsa.

M. hæmatopygia, Gould, P. Z. S. 1851; *Idem*, Birds of Asia, pt. iii. t. 15.

MONTIFRINGILLA ADAMSI, Moore. Marselang, Taglang.

FRINGILLAUDA NEMORICOLA, Hodgs. Kotegurh (winter only), Karoo, Rangdum-Gonpa, Zingzingbar.

In most of the examples the feathers of the occiput are dark, bordered with reddish; but there are some specimens which show gradual transitions to a uniform red crown; among these last is an individual from Karoo, which is also distinguished by having a redder breast, and the feathers above edged with a lively rust-yellow.

CALANDRELLA RAYTAL (Buch. Hamilton). Camp Lama Yuroo.

OTOCORIS PENICILLATA (Gould). d'Zala.

ALAUDE GULGULA, Franklin. Islamabad (September).

PALÆORNIS SCHISTICEPS, Hodgs. Kotegurh (winter), Urui.

The young bird from Urui is not nearly full-grown. Its entire length is $10\frac{1}{2}''$, that of wing $5'' 9'''$, and of the tail $5\frac{1}{2}''$. On the head the grey is wanting; still the space which should be occupied by that colour is for the greater part defined by a darker green. The black throat-bands are wanting. The bill is of a dark brown instead of being red.

PALÆORNIS ROSA (Bodd.). Kotegurh (winter).

PICUS HIMALAYENSIS, Jard. et Selby. Budrawar, Kotegurh, Simla, Mahasu, Pangl.

PICUS BRUNNEIFRONS, Vig. Kotegurh, Gaora.

The red on the back of the head is wanting in the female from Kotegurh.

GECCINUS SQUAMATUS (Vig.). Kotegurh (winter), Pangi, Gaora.

A male and a female from Pangi are somewhat smaller; and the abdominal markings extend over the breast and reach upwards to near the throat. Judging by analogy, and by what we find in the European Green Woodpecker, both these specimens must be of young birds.

PICUMNUS INNOMINATUS, Burton. Kotegurh (winter).
Vivia innominata, Jerdon, *op. cit.* i. p. 300.

MEGALÆMA VIRENS (Bodd.). Kotegurh (winter).

CUCULUS CANORUS, L. Pangi, Matiana.

CUCULUS POLIOCEPHALUS, Lath. Pangi.

A specimen in rufous plumage.

COCCYSTES MELANOLEUCUS (Gmel.). Serahan, Urui.

SPHENOCERCUS SPHENURUS (Vig.). Kotegurh, Gaora.

ALSOCOMUS HODGSONI (Vig.). Kotegurh, Pangi.

PALUMBUS CASIOTIS, Bonap. Kotegurh (winter).

COLUMBA INTERMEDIA, Strickl. Kotegurh, Pangi.

TURTUR MEENA (Sykes). Pangi.

TURTUR CAMBAYENSIS (Gmel.). Kotegurh (August).

TURTUR SURATENSIS (Gmel.). Kotegurh.

TURTUR RISORIUS (L.). Kotegurh*.

LOPHOPHORUS IMPEYANUS (Lath.). Kotegurh.

CERIORNIS MELANOCEPHALA (Gray). Kotegurh (winter).

Among the specimens sent is an old male in winter plumage, with the throat-lappets and the horns not developed, an old female, and a young male of the second year in winter plumage,

* Dr. Stoliczka received a pair of *Pterocles fasciatus* (Scop.) from Mr. Gneg [*qu. Greig?*], which were obtained on low hills at Derbant on the Indus.

in which the red on the nape and breast is commencing, and in which otherwise the transition from the female to the male dress is beginning.

PUCRASIA MACROLOPHA (Less.). Kotegurh (winter).

PHASIANUS WALLICHI, Hardw. Kotegurh?

GALLOPHASIS ALBOCRISTATUS (Vig.). Kotegurh (winter).

FRANCOLINUS VULGARIS, Steph. Kotegurh (winter).

CACCABIS CHUKAR (Gray). Kotegurh.

Hardly separable from *C. græca* (Briss.).

ARBORICOLA TORQUEOLA (Valenc.). Kotegurh.

COTURNIX COMMUNIS, Bonnat. Kotegurh.

ÆGIALITIS PYRRHOTHORAX (Temm.). Kyangsisa.

TOTANUS GLAREOLA (L.). Lake Gyagar.

GALLINAGO SCOLOPACINUS, Bonap. Kotegurh.

CASARCA RUTILA (Pall.). Puga.

AYTHYA NYROCA (Güldenst.). Sirinagur (September).

STERNA HIRUNDO, L. On the Indus near Puga.

XXVII.—On the Ornithology of Palestine. Part VIII.

By the Rev. H. B. TRISTRAM, M.A., LL.D., F.R.S., &c.

[Concluded from page 215.]

THE *Otididæ* are very scantily represented. *Otis tarda* is said to be found on the Plain of Sharon; I fear it is becoming as scarce there as in Norfolk, and must almost be reckoned with the things that were. However, it is still plentiful on the plains of Northern Syria. Russell (Nat. Hist. Aleppo, ii. p. 202) mentions *Otis arabs* among the birds of Syria; but I can find no trace of this African species in the east, except the statement of Edwards (appended to his admirable plate published in 1743) that Sir Hans Sloane had one alive for many years, which was brought from Mocha. Russell's bird is no doubt the Houbara, which is very common in the Jordan valley, where I have seen it day after day in small flocks, but never succeeded in getting